

NDC Implementation in Cambodia: World Bank's Support

Muthukumara Mani, Lead Climate Change Economist

Consultation meeting of CCTWF and DPs on the implementation of the updated
NDC,

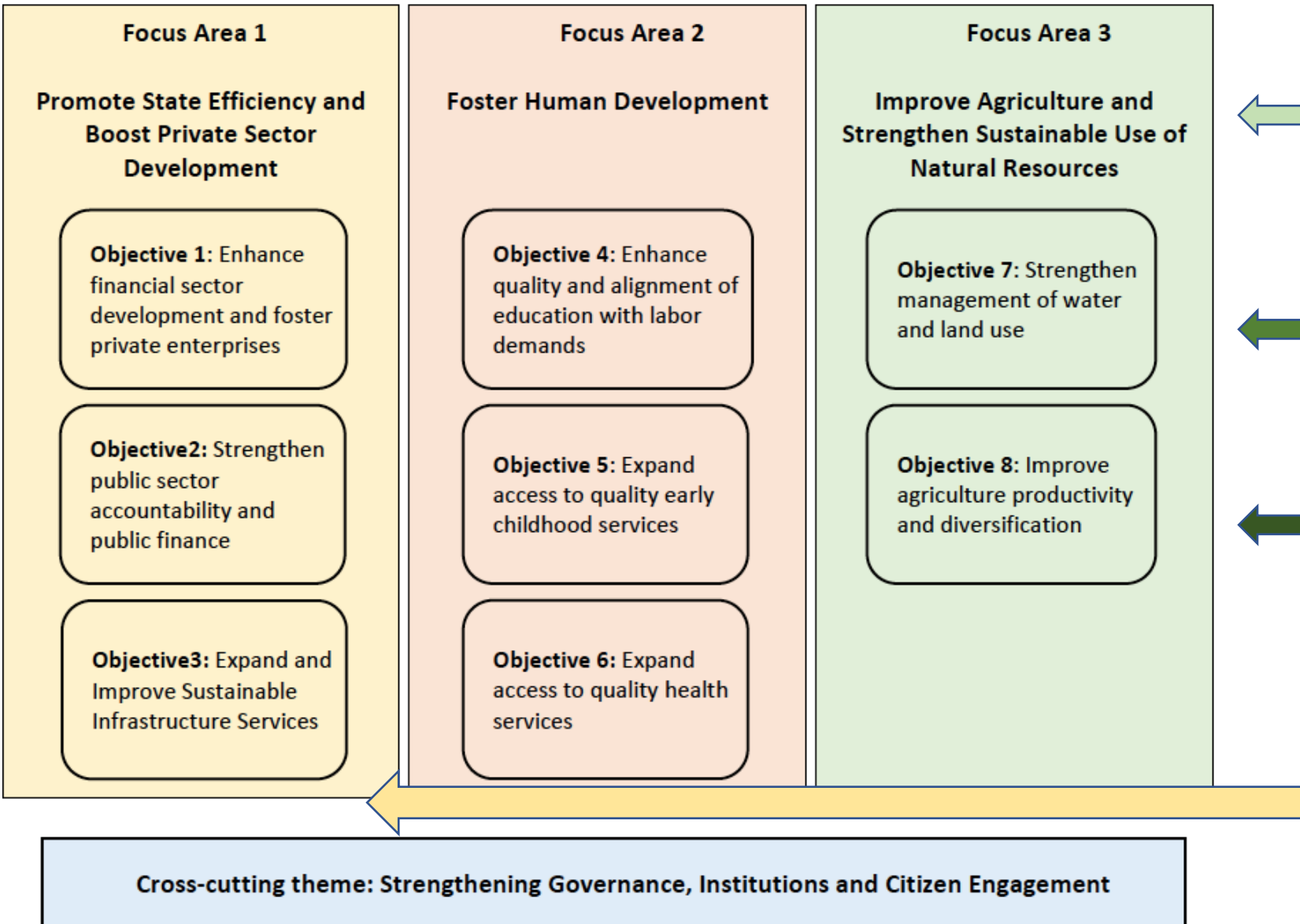
Tuesday, 17th May 2022



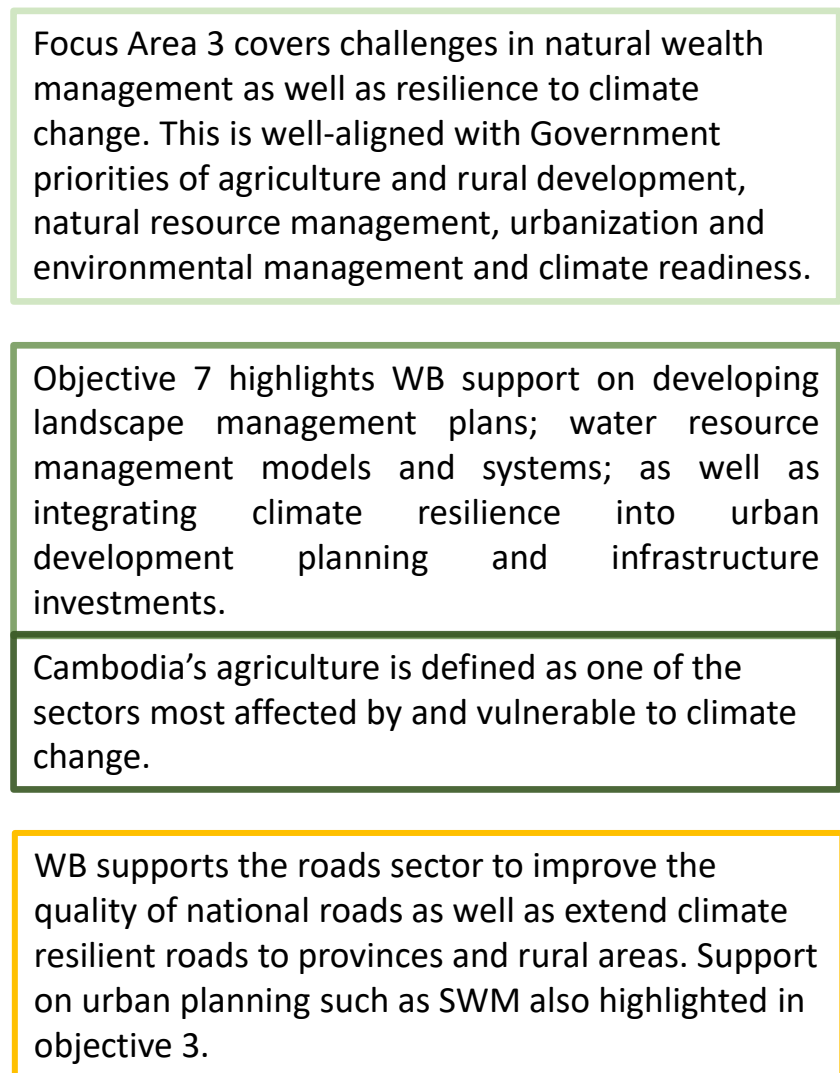
Part 1: World Bank and
Climate in CPFs

World Bank's CPF & Climate change: Integrated in CPF Focus Areas 1 and 3

Cambodia's CPF: Focus Areas and Objectives



Climate Integration



The World Bank & key analytical work on climate change

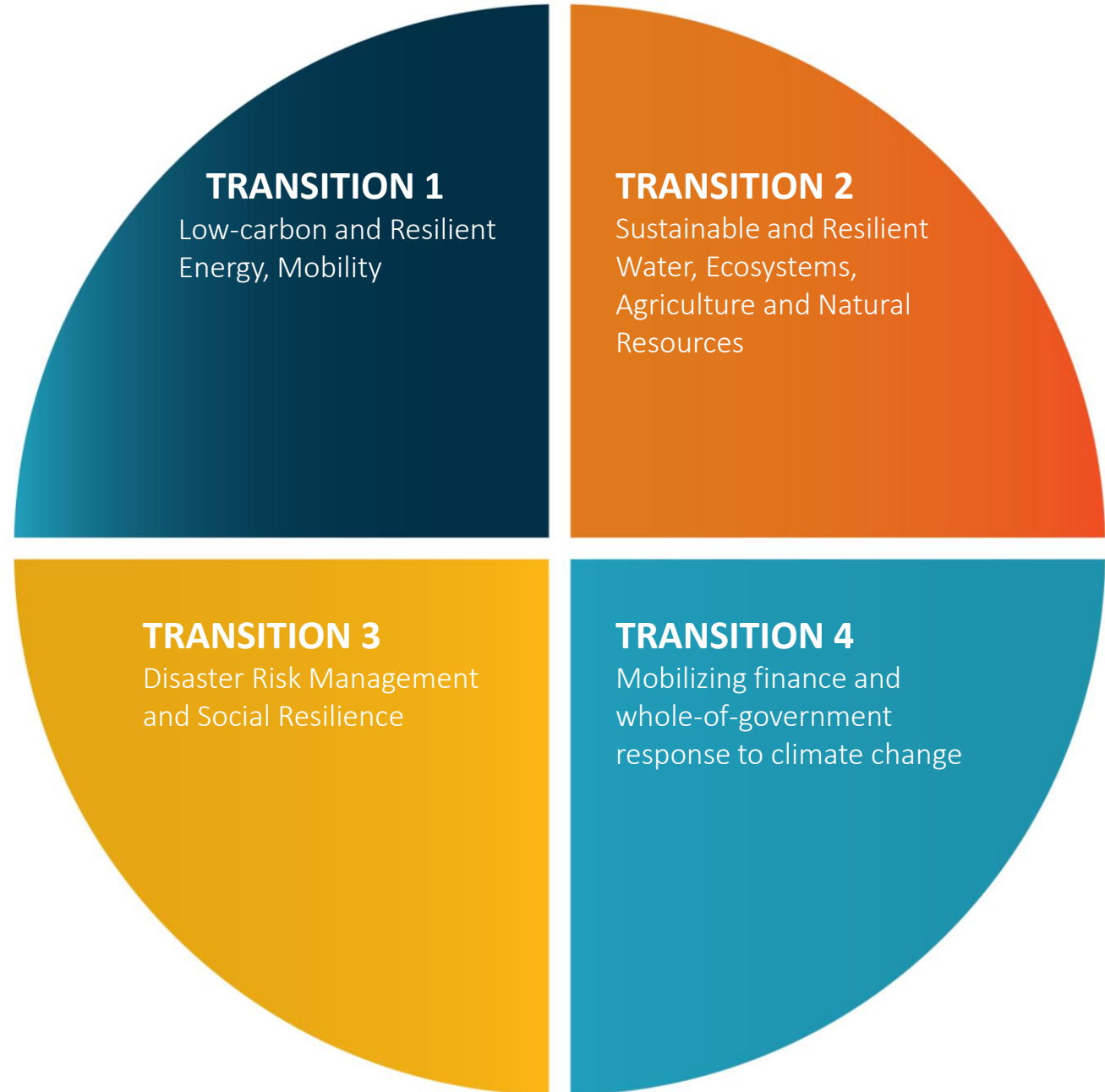


WBG support through ASA has been deeper and more complex, providing in-depth analysis, policy advice, technical assistance and capacity building on a range of critical development areas (CPF).



Part 2: Support to NDCs and Key transitions

Climate engagements organized in 4 key climate transitions and linkages with WB 2025 Corporate Targets and Actions, and Cambodia's NDC targets.



Resilient Transport

Constraints: (i) large share of unpaved roads and poor maintenance; (ii) disrupted market access, "agricultural roads" are nonexistent or in poor condition; (iii) marginal budget allocations for rural roads maintenance compared to the needs; (iv) accessibility constrains in rural areas to hospital and schools



Link to WB Targets



Link to NDC

WB INTERVENTIONS

- Improve the road connectivity for agricultural diversification plans in response to CC
- Systematically introduce designs that include climate proofing measures for selected national road corridors
- Repair and upgrade roads, bridges, and public infrastructure with climate resilience measures
- Improve climate resilient road access to economic (markets) and human capital development (schools and hospitals) facilities in targeted provinces

WB ENGAGEMENTS

- Cambodia Agricultural Sector Diversification Project (P163264, IPF, IDA)
- KH - Road Asset Management Project II (P150572, IPF, IDA)
- Cambodia Road Connectivity Improvement (P16993, IPF, IDA)
- Cambodia Southeast Asia Disaster Risk Management Project (P160929, IPF, IDA/GFDRR)

KEY TARGETS

- 76% of total classified paved roads are roads in good and fair condition by 2026
- 414 km of roads maintained under performance-based maintenance contracts by 2026
- Resilient rural roads rehabilitation and maintenance (290km) by 2022
- Rural road maintenance plan which incorporates road disaster vulnerability developed by 2022

The full set of actions/targets in the annex of reference deck

Sustainable Landscape Management

Constraints: (i) Forest degradation is pervasive due to unsustainable logging practices and fuelwood extraction. (ii) The Cardamom Mountains and Tonle Sap floodplain face threats of cultivation encroachment, illegal timber harvesting and uncontrolled developments in forest for irrigation and rice cultivation.



Link to WB Targets



Link to NDC

WB INTERVENTIONS

- Promote ecotourism opportunities
- Enhance the RGC's capacity for sustainable landscape planning
- Identify investment priorities to strengthen resilient landscapes and sustainable natural resources
- Provide data and information on the contribution of forests to climate resilience in the Cardamom-Tonle landscape

WB ENGAGEMENTS

- Cambodia Sustainable Landscape and Ecotourism Project & AF (P165344, IPF, IDA/GEF)
- Cambodia GCF program (under pre-identification)
- Land Allocation for Social and Economic Development Project II & III (P150631, P171331, IPF, IDA)
- Enhancing Environmental Sustainability and Resilience in Cambodia (P168687, ASA)
- Cambodia: Ecosystem Valuation (P169924, ASA)

KEY TARGETS

- Protected areas under improved management reach 2,052,870 Ha by 2025
- Five protected areas (PAs) enforcement strategy operational and seven PAs management plans adopted by 2025
- Development of a roadmap for forest landscapes by 2020
- Sustainable Landscape Management Notes delivered by 2020

The full set of actions/targets in the annex of reference deck

Climate Smart Agriculture

Constraints: (i) no access to extension services, financial services, and public infrastructure for demand-driven diversification; (ii) lack of access to on-demand irrigation and adequate water management.



Link to WB Targets



Link to NDC

WB INTERVENTIONS

- Facilitate the development of diversified agriculture value chains and provide immediate and effective response in case of an eligible crisis / emergency
- Provide certain market-linked agricultural extension services leading to the adoption of new technologies to increase productivity and to enhance resilience to climate risks
- Support sustainable land management and climate-smart agricultural practices

WB ENGAGEMENTS

- Cambodia Agricultural Sector Diversification Project (P163264, IPF, IDA)
- Land Allocation for Social and Economic Development Project II & III (150631, P171331, IPF, IDA)

KEY TARGETS

- 150 agricultural diversification proposals submitted and evaluated by 2024 with potential benefits of adopting improved production and processing practices, technologies, and farming systems
- 12,000 Ha provided with new/improved irrigation or drainage services by 2024
- Land area to 8,600 ha where sustainable land management practices have been adopted by 2026

The full set of actions/targets in the annex of reference deck

Coastal Resilience

Constraints: (i) Degradation of natural resources and increased ocean pollution; (ii) coastal mangrove forests have been cleared for resort and industrial development.



Link to WB Targets



Link to NDC

NDC is limited to agricultural resilience in coastal areas.

WB INTERVENTIONS

- Provide diagnostic and policy advice related to mangrove and beach erosion
- Use spatial planning to design Marine Protected Areas and other purposes with stakeholders.

WB ENGAGEMENTS

- Coastal Blue Economy Development Path and Updated NDC for Cambodia (P172461, ASA)

KEY TARGETS

- A blue economy development vision and roadmap formulated for selected areas
- Recommendations for policy and institutional reform for improved coastal zone management identified.

The full set of actions/targets in the annex of reference deck

Water Resources Management

Constraints: Existing data and information collection systems are still largely inadequate to capture the complexities of the basin.



Link to WB Targets



Link to NDC

NDC is limited to groundwater research and agricultural resilience in coastal areas.

WB INTERVENTIONS

- Establish the foundation for effective water resource and fisheries management
- Improve resilient WRM practices including flood retention
- Technical engagement on economic valuation and benefit sharing through quantifying the benefits to provide protection against CC including water-related risks

WB ENGAGEMENTS

- Mekong Integrated Water Resources Management Project - Phase III (P148647, IPF, IDA)
- Productive Water and Natural Resources Management (FY22)
- Cambodia Improving Rural Water and Sanitation Services (P161075, ASA)
- Cambodia's Mekong Delta: Building Climate Resilience and Sustainability (P169923, ASA)
- Mekong Vision 3.0 (P171188, ASA)

KEY TARGETS

- 4 sub-basins with WRM models developed by 2021
- Exchange of WRM data between Vietnam and Cambodia as a result of Transboundary Cooperation
- Creation of an interactive web portal (Mekong Delta Atlas) to formulate a joint strategy for sustainable water use
- 8 River Basins stakeholder workshops trained in WRM processes and benefits by 2021
- An assessment and policy paper on the benefits of water by 2021

The full set of actions/targets in the annex of reference deck

DRM

Constraints: (i) disaster and risks currently are not systematically integrated into investments; (ii) limited financial capacity to respond to disaster events.



Link to WB Targets



Link to NDC

WB INTERVENTIONS

- Upgrade the hydro meteorological monitoring system
- Take disaster and climate risks into account in public investment planning
- Reflect Climate Resilient Designs in the lessons; flooding and drought hazards are taken into the design of facilities in hazard prone areas
- Provision of technical assistance to strengthen MEF's capacity for financial planning for disaster resilience

WB ENGAGEMENTS

- Mekong Integrated Water Resources Management Project - Phase III (P148647, IPF, IDA)
- Cambodia SEA DRM Project (P160929, IPF, IDA/GFDRR)
- Cambodia Higher Education Improvement Project (P162971, IPF, IDA)
- Enhancing Environmental Sustainability and Resilience in Cambodia (P168687, ASA); Child Task - Cambodia's Mekong Delta: Building Climate Resilience and Sustainability (P169923, ASA)

KEY TARGETS

- 25 hydro-meteorological monitoring stations newly established or improved in and functioning the 3S and 4P sub-basin by 2021
- Development of vulnerability profile maps, specifically for flood hazard, exposure and risk
- National disaster risk finance strategy to be developed

The full set of actions/targets in the annex of reference deck

Sustainable Cities

Constraints: *Waste Mgmt* - (i) missing, inconsistent and unverifiable waste data; (ii) inadequate SWM; (iii) landfills reaching capacity limit; (iv) no solid waste management unit in municipalities with enough budget and staffing
Green Mobility - (i) heavily undeveloped public transport; (ii) disconnected implementation of spatial development plans from transport demand and real estate investments; (iii) fragmented institutions



Link to WB Targets



Link to NDC

WB INTERVENTIONS

- Support solid waste management policy and legislation as well as capacity development at the national and municipal level
- Prepare a more comprehensive SWM investment and development plan, including policies in waste (specifically plastic) collection and mgmt
- Reduce/reuse/recycle the top 10 priority plastics polluting the waterways and ocean
- Strengthen technical capacity on key institutions to implement and prioritize green mobility solutions

WB ENGAGEMENTS

- Cambodia: Solid Waste and Plastic Mgmt Improvement Project (P170976, IPF, IDA)
- Water Supply and Sanitation Improvement (P163876, IPF, IDA)
- Enhancing Environmental Sustainability and Resilience in KH (P168687, ASA); Subtask: SSWPM (P169925, ASA)
- Cambodia and Lao PDR: Fostering Green Mobility and Walkable Cities Strategy for Luang Prabang and Siem Reap (P172593, ASA)
- Coastal Blue Economy Dev. Path and Updated NDC for Cambodia (P172461, ASA)

KEY TARGETS

- An increase in the proportion of population with regular household waste collection
- Reduced GHG emissions volume from SWM
- 8000 m3 of wastewater collected and transported to wastewater treatment plant in Siem Reap City by 2024
- Green Mobility strategy informed for Siem Reap by 2021 with a focus on non-motorized transport solutions

The full set of actions/targets in the annex of reference deck

Part 3: CCDR – A new diagnostic report

What is a CCDR?

- The CCDR is a **new core country diagnostic** product that will inform the Country Partnership Framework
- The objective is to capture the **interplay** between each **country's development goals** and climate change
 - Analyze how the country's development goals can be achieved in the context of mitigating and/or adapting to climate change
 - Consider and reflect the country's commitments as embedded in Nationally Determined Contributions (NDC)
 - Identify ways to support implementation of NDC and other country commitments
- **Timing for completion:** 6-9 months
- To be done **once in 5 years**
- To be done **jointly with IFC**

Proposed Outline

1. Climate and development

- Energy access, consumption and matrix, transport, agriculture, technology, climate, and natural disaster vulnerability.
- Benchmarking exercise and other metrics.

2. Review of country climate program

- Government program
- NDC commitments

3. Macro policies for climate

- Growth-climate trade-offs; pricing, public expenditures for climate mitigation & adaptation.

4. Sectoral policies, investments for climate action

- Focus on agriculture, energy, transport, urban management, technology, food systems, etc.
- Institutional arrangements to encourage development

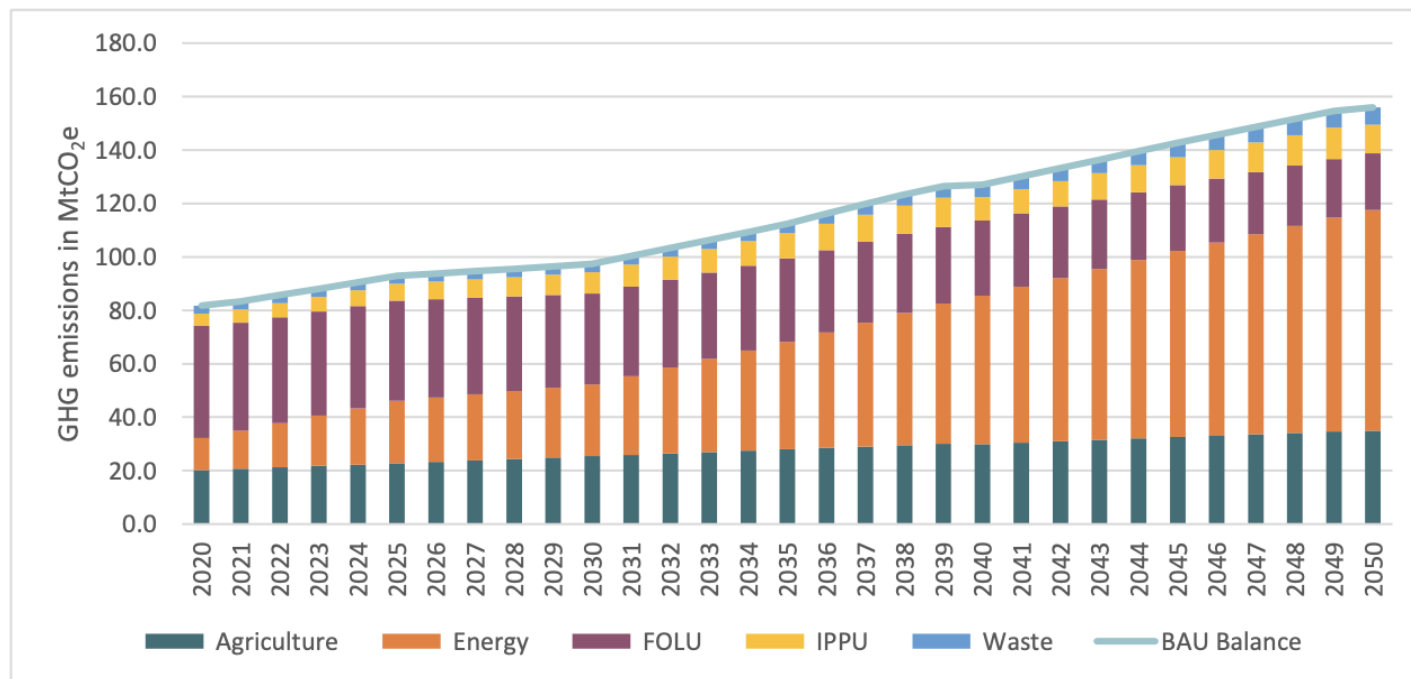
Conclusions and prioritized recommendations



Economic Prosperity - Driving towards

- GDP: US\$ 23 billion and Population: 16.72 million
- Sustained, robust and inclusive growth of around 7.9% per annum over last two decades
- Huge reduction in poverty: 53% (2004) to 13.5% (2014) and 10% (2018)
- RGC's vision to transform to Upper Middle-Income Country (UMIC) by 2030 and High-Income Country (HIC) by 2050.

Growing greenhouse gas emissions (BAU) till 2050



Sector	BAU scenario, MtCO ₂ e
Agriculture	34.9
Energy	82.7
FOLU	21.2
IPPU	10.7
Waste	6.5
Total	156.0

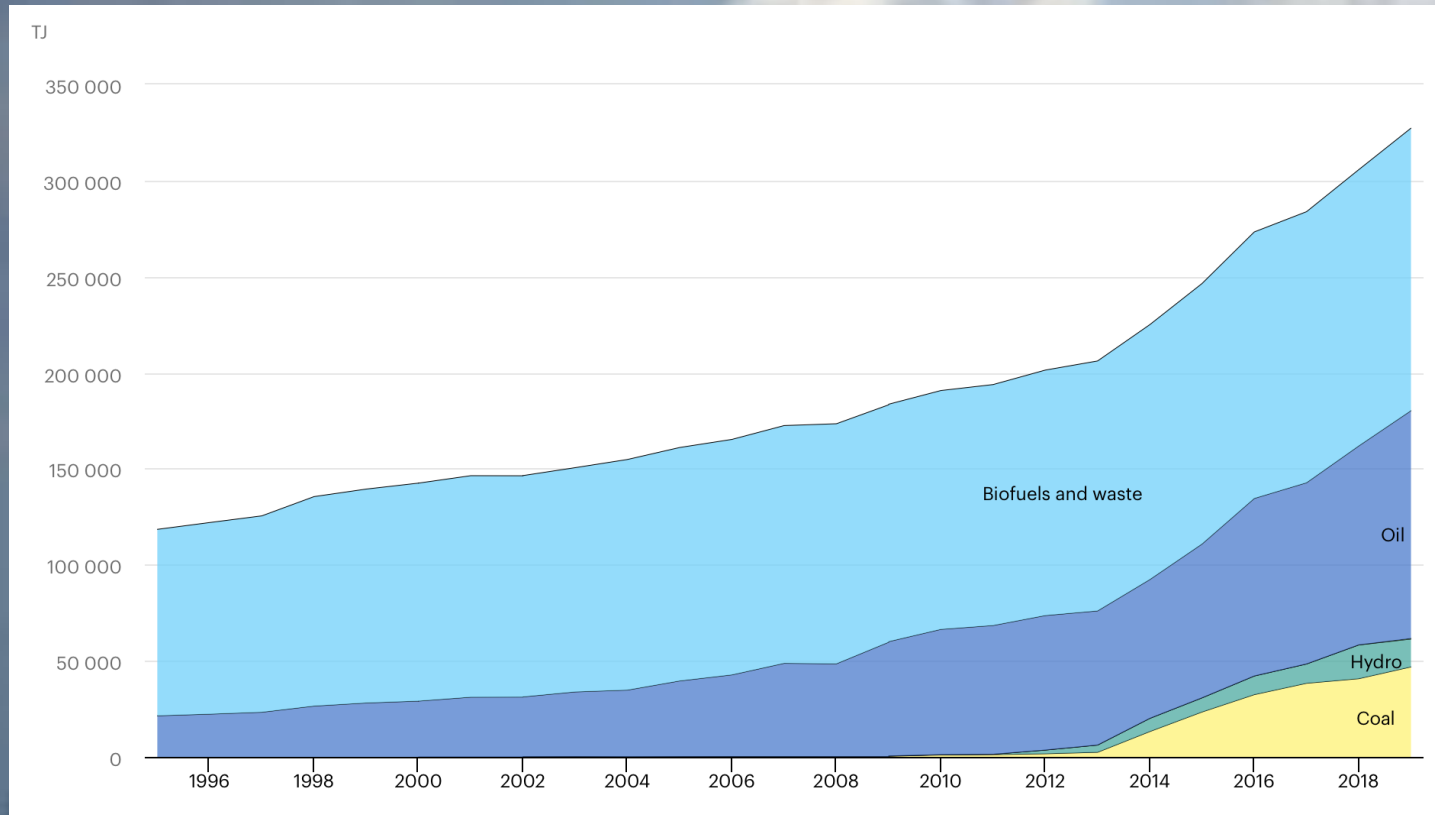
Source: LTS, Dec 2021

Energy: Population and economic growth driving fossil fuel-based and emissions-intensive development; Expected to increase by a factor of 10.

Agriculture: Increased rice and meat production and consumption to serve the growing population

Forestry and Other Land Use (FOLU): Deforestation – a major cause of emissions

Energy Supply Mix and Imports



Energy Supply By Source

Coal: 46,832 TJ

Hydro: 14,491 TJ

Wind/Solar: 336 TJ

Bio-fuels and waste: 147,047 TJ

Oil: 118,558 TJ

Total: 338,290 TJ

Source: IEA

All of coal and oil are imported. And, bio-fuels and waste form 44% of its energy supply

Cambodia's geography and climate make it one of the most vulnerable countries to climate change in the region.

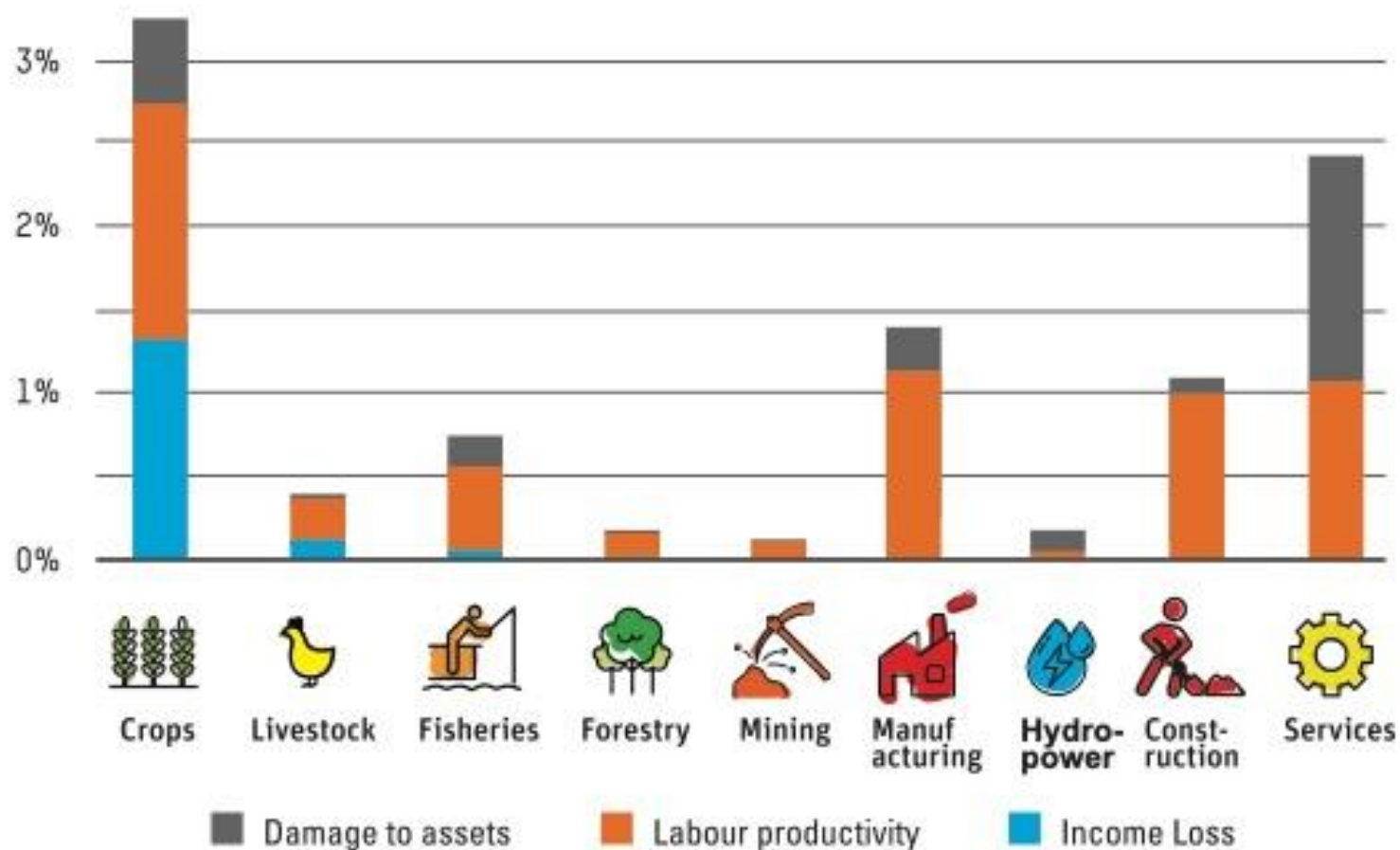
- Climate change will reduce GDP growth by 2.5% in 2030 and 9.8% by 2050 (MEF, NCSD, MoE, 2019)
- Reduce in labour productivity accounts for 57% of loss and damage in 2050 (it affects all sector but particularly high in manufacturing and construction).
- 8 million people impacted and about US\$ 1.8 billion loss in agriculture and infrastructure sectors due to natural disaster from 2005-2019.

The Notre Dame Global Adaptation Index (ND-GAIN) ranks Cambodia as the 147th most vulnerable country (out of 182 countries) and 159th most climate ready country.



Costs of Climate Change

Economic impact of climate change by sector and type of impact (%drop in absolute GDP 2050)



(MEF, NCSD, MoE, 2019)

Strong commitment to climate and green growth

- **National Strategic Development Plan (NSDP) 2019-2023:** Climate change is one of the cross-cutting issues and 13 related climate change indicators listed in the NSDP.
- **National Green Growth Roadmap 2009:** holistic approach to sustainable development helping Cambodia to reduce climate change vulnerability and to improve resilience
- **Cambodia Climate Change Strategic Plan (CCCSP) 2013-2023:** main policy instrument for climate change responses
- Guided by the CCCSP: 11 sectoral Climate Change Strategic Plans and 15 Climate Change Action Plans.
- **National Environment Strategy and Action Plan, 2016–2023 (NESAP)** provides foundation for policy priorities and identifies financing options for sustainable natural resource management and environmental protection.
- ***Updated National Determined Contribution (NDC):*** *Stronger mitigation and adaptation commitments* than the previous 2015 NDC
- **Long-Term Strategy for Carbon Neutrality (LTS4CN):** provides a long-term vision for low-emission development and ensure the coherence of short-term climate action with long-term climate goals.